A Review Science Unit for 4th Grade

By Megan Hanson

\*\*\*Jared Dittmer’s Comments are in red\*\*\*

**Rationale:**

In the state of Kansas, fourth grade is one of the years that the students are responsible for taking the Kansas State Science Assessment. One of the topics on the test, which has been taught in years passed, is the water cycle.

I decided to put together somewhat of a short review unit for teachers to use in order to refresh their students’ memories of the basic information of this topic in preparation for state assessments.

This makes sense. It seems like you have a sound reason behind your choice of the unit.

**Contents:**

* 2 lesson plans
* 1 Introduction/Review Power Point Presentation:

[Water Cycle PowerPoint Presentation](file:///C:\Users\user\AppData\Local\Temp\Water%20Cycle%20Intro.ppt)

* 1 WebQuest

<http://www.madison.k12.ky.us/district/projects/WebQuest/water/HTML/water.htm>

* 1 Set of Quizlet Flashcards:

<http://quizlet.com/2433072/water-cycle-vocabulary-flash-cards/>

* 1 CALLT *Listening* Activity:

<http://www.esl-lab.com/seasons/seasonsc1.htm>

* 1 VoiceThread *Speaking* Activity: <http://voicethread.com/share/1200889/>
* 1 Concordancer/Online Dictionary Link:

<http://www.lextutor.ca/>

**Water Cycle Lesson Plan #1**

**FL 790 CALLT for ESL/EFL Teachers**

**Dr. Sehlaoui**

1. **HEADING**

Megan Hanson

June 8, 2010

Science

4th Grade

At least 1 hour session

1. **RATIONALE & BACKGROUND**

The point of this lesson is to reintroduce the Water Cycle to 4th grade students. It will be basic enough for students who have not yet learned about this topic to be able to keep up, yet interesting enough for those students who have heard it several times before.

1. **LESSON OBJECTIVES**

**I think you need to label your objectives. It seems like you have two content objectives but are missing the language objective and social/strategy learning objective.**

**Language Objective: After reviewing sequencing words/phrases (first, next, then, after that, finally) TLW will 100% correctly apply three of these terms to describe the water cycle.**

After first viewing a multimedia PowerPoint presentation that introduces the Water Cycle, TLW be able to list the three phases of the water cycle in the correct order.

After listening to a brief explanation of the four seasons in a narrator’s hometown, TLW be able to apply the knowledge of the water cycle in order to tell about an example of the water cycle taking place in their own home environment during a chosen season.

1. **LIST OF RESOURCES**

You included ample resources that directly apply to your lesson. This should make the lesson very engaging and informing.

* Harcourt *Science*, 4th grade Edition, Unit D, Chapter 2
* Introduction/Review Power Point Presentation:

[Water Cycle PowerPoint Presentation](file:///C:\Users\user\AppData\Local\Temp\Water%20Cycle%20Intro.ppt)

* CALLT *Listening* Activity:

<http://www.esl-lab.com/seasons/seasonsc1.htm>

* VoiceThread *Speaking* Activity:

<http://voicethread.com/share/1200889/>

* Concordancer/Online Dictionary Link:

<http://www.lextutor.ca/>

* Water Cycle Song on TeacherTube (song): <http://www.teachertube.com/members/viewVideo.php?video_id=7708&title=Water_Cycle_Song>

1. **CURRICULUM ANALYSIS & LINGUISTIC ANALYSIS**
   * 1. Curriculum: Water Cycle, understanding the names and correct order of the 3 phases of the cycle
     2. Linguistic: TLW be able to carefully read and listen to an explanation of the water cycle before applying that information to give a spoken example of the cycle in action
     3. Vocabulary: atmosphere, cloud, condensation, ground water, evaporation, precipitation, run-off, surface water, water cycle, and water vapor
2. **PROCEDURES**
   1. **Introduction and Motivation**
      1. Display an image of the water cycle (as seen on Water Cycle VoiceThread from Resource List) on the projector screen. Ask students if anyone can tell you anything about what they see in the image. (Acceptable answers may include any part of the image or any appropriate Water Cycle term they may already know/remember.) Using SMART Airliner or chalk/dry erase board, create a list of words/phrases the class compiles from looking at the image.
      2. Share the short Water Cycle song from TeacherTube (see Resource List).
      3. Ask students if they can add anymore words/phrases to the list.
   2. **Lesson Body**
      1. Place student in pre-selected groups of 3 (ensuring that groups are equally balanced.) Allow them approximately 1-2 minutes to brainstorm and list everything they can about the Water Cycle.
      2. Share the PowerPoint Presentation to introduce/review the Water Cycle. (Narration is available if a student needs to watch it without the teacher’s guidance for any reason.)

If you happen to have a class website (I’ve used ning.com for this) you could upload this for review. The fact that your powerpoint is narrated would also make it more accessible for students to review.

* + 1. Allow students to discuss with their groups what they learned from the PowerPoint; they may add to their list. After about a minute of discussing with groups, ask them to share their thoughts with the class.
    2. Asking students to keep that information in mind, have the students work with their groups again. Each group is to go to the CALL listening activity about the four seasons (see Resource List.) Direct them to complete the pre-listening, listening and post-listening activities that go with the narration of the four seasons. Within their groups, have them also discuss what the four seasons have to do with the water cycle (e.g. precipitation changes form, evaporation rates change, etc.) They may use the Concordancer/Online Dictionary link to help them gain understanding of any unfamiliar words used in the narration.

This may not be completely related, but have you taught them how to use the concordance. It took some of my college students a while to get a feel for how and why a concordance is useful. One activity I have my students do is try identify common words that precede or follow the target word.

* 1. **Lesson Closure**
     1. Once groups have completed the CALL activity, direct them to the VoiceThread link for a Water Cycle speaking exercise.
     2. This activity should be completed individually.
     3. While looking at the same diagram of the water cycle as shown to the class at the beginning of the lesson, students are to record themselves on the VoiceThread labeling each part of the Water Cycle in the correct order and using their best, clearest pronunciation possible. (Slide 1 of VoiceThread)

As has been mentioned in the class, this is a great way to vary the traditional “write….” homework that students are probably used to and somewhat bored with. Again, it seems like this might be a good place to add sequencing words for language. You could try to come up with more challenging sequencing phrases if the ones I mentioned are too easy for your students.

1. **EVALUATION**

**A. Student Assessment**

* + 1. On the next slide of the VoiceThread, after listening to me briefly talk about typical water cycle in spring in Kansas, have the students record a short story of their own account of the water cycle, any season, any location they are familiar with. (Slide 2 of VoiceThread)
    2. Returning to the same small groups that the students worked with on the CALL activity, have them draw and label a colorful diagram of the Water Cycle to share what they learned with the rest of the class.
* **Challenge:** See if your students can incorporate features of their own neighborhood into their water cycle diagram!
  + 1. Students will be assessed on two skills: 1) Their appropriate use and pronunciation of water cycle terms in their VoiceThread narration;

I’m not sure, but if you are going to assess pronunciation you might want to include that in the objectives. I don’t know what sounds your learners typically struggle with, but it might be good to include a short minimal pair activity to remind them to distinguish between certain sounds.

2) Accurate use of terms and labels in their group’s water cycle diagram, as well as their speaking presentation to the class when sharing their work.

Overall this lesson looks great. Your use of CALL seems very effective and the extensive resources makes this a very rich lesson. The main thing I would work on is the language objective. You address speaking, but I think your objective needs to be more specific and taught explicitly during the lesson.

**Water Cycle Lesson Plan #2**

**FL 790 CALLT for ESL/EFL Teachers**

**Dr. Sehlaoui**

1. **HEADING**

Megan Hanson

June 8, 2010

Science

4th Grade

45-60 minute session

1. **RATIONALE & BACKGROUND**

In order to give the students more experience with locating information about a topic using appropriate internet resources, this activity incorporates the use of an online WebQuest based on the water cycle. They will not only gain internet research experience, but also more knowledge and understanding of the topic of discussion.

1. **LESSON OBJECTIVES**

After completing activities of Lesson Plan #1, which introduced/reviewed basic information about the Water Cycle, and after studying 10 basic Water Cycle terms, TLW be able to successfully complete the journey on the WebQuest: “Little Drop’s Big Water Cycle Trip”.

Do students have to complete the lesson 100% successfully? Do they have to complete it on the first attempt?

Again, I was not able to access that WebQuest, so I’m not sure what all it entails. I would again, however, look for some specific language point [maybe passive voice] for example, in “The Water Cycle Song” you could pause when it says, “The sun powers the water cycle” and explain to students that in science, the passive voice is often used to move the central theme to the front of the sentence (The water cycle is powered by the sun). You could then have them change other sentences (either from passive to active or vice-versa) or create their own sentences.   
  
I am positive, but I think we need to include specific language points like this in the plan as well.

1. **LIST OF RESOURCES**

* Harcourt *Science*, 4th grade Edition, Unit D, Chapter 2
* YouTube “The Water Cycle Song” by Mr. Davies:

[www.youtube.com/watch?v=okZBiy\_IdBA&feature=related](http://www.youtube.com/watch?v=okZBiy_IdBA&feature=related)

* WebQuest:

[Little Drop's Big Water Cycle Trip: http://www.madison.k12.ky.us/district/projects/WebQuest/water/HTML/water.htm](http://www.madison.k12.ky.us/district/projects/WebQuest/water/HTML/water.htm)

I was not able to access this website.

* Vocabulary Quizlet:

[Water Cycle Vocabulary: http://quizlet.com/2433072/water-cycle-vocabulary-flash-cards/](http://quizlet.com/2433072/water-cycle-vocabulary-flash-cards/)

* Online Concordancer/Dictionary:

<http://www.lextutor.ca/>

* Online games:

<http://www.epa.gov/ogwdw000/kids/gamesandactivies.html>

<http://kids.earth.nasa.gov/droplet.html>

1. **CURRICULUM ANALYSIS & LINGUISTIC ANALYSIS**
   * 1. Curriculum: Water Cycle, gaining understanding of significant terms/phrases and using technology for research
     2. Linguistic: Vocabulary, building to their repertoire of academic vocabulary
     3. Vocabulary: atmosphere, cloud, condensation, ground water, evaporation, precipitation, run-off, surface water, water cycle, and water vapor
2. **PROCEDURES**
   1. **Introduction and Motivation**
      1. In pre-selected groups (to help keep groups balanced and varied), have students brainstorm through discussion what they remember learning about the Water Cycle in the previous lesson (See Lesson Plan #1). Allow 2 minutes for group discussions to take place.
      2. As a quick review/refresher, show “The Water Cycle Song” from the PowerPoint presentation that the class viewed yesterday (see Resource List for a direct link.)

This seems like a great way to promote recall from the previous day.

* + 1. Allow groups to discuss Water Cycle for 1 more minute to add to their list.
    2. Ask each group to share one thing they remember (e.g. a vocabulary term, a picture in the diagram or PowerPoint, etc.)
  1. **Lesson Body**
     1. Have these same groups direct their attention to their computers. Direct them in how to find the WebQuest: “Little Drop’s Big Water Cycle Trip”. (See Resource List for a direct link.)
     2. As a class, show the students all the components to the WebQuest. For those who are unfamiliar with WebQuests, make sure they are completely clear on how it works. Remind them to use their Concordancer/Dictionary link to help clarify any words that are unclear to them as they complete the “journey” through this quest.
     3. Remind the students to be clear to visit each page of the quest and to read all directions carefully.
  2. **Lesson Closure**
     1. After completing the WebQuest journey, each group needs to complete a project of their choice to use to teach the rest of the class what they learned about the Water Cycle. Some ideas include:
        + Game
        + News report
        + Short story/skit
        + PowerPoint Presentation
        + PhotoStory
     2. Show the student the Rubric (link found in the ‘Evaluation’ section) on the WebQuest from which their project will be graded.

1. **EVALUATION**
   1. **Student Assessment**
      1. Group project will be graded based on the rubric from the WebQuest as well as accurate/appropriate use and pronunciation of key terms from this unit.
      2. Peers will also have the opportunity to ‘grade’ the final projects presented in class. Only constructive feedback will be accepted and shared with the groups.

I really like the idea of having students constructively feedback on others’ work. This is a skill that seems uncomfortable at first, but it is very beneficial for the one offering the feedback and the one receiving it.

Again, you use CALL tools very effectively to enhance this lesson plan. I’m sure your students will gain a lot from the various ways in which you direct them to work with the material. This is a strong submission. A little work on the objectives of each lesson would make it a very strong submission.   
  
Especially since I usually work with older students, it was neat to see that you can apply CALL tools just as effectively to 4th graders as I can with my university students. It helped me realize the versatility and usefulness of the tools we learned about. I’ll teach a camp for that age this summer, and your project has given me some good ideas of how I could use these tools for younger students. I really enjoyed your lesson. Good luck as you work on the finishing touches.